Chapter 3:

Surface Water

2002 Edition

Chapter 3: Surface Water

Introduction

New Hampshire's surface waters are a finite resource, often subject to competing interests and vulnerable to degradation from a variety of means and sources. Surface waters are classified by the New Hampshire Legislature based on their intended uses and water quality goals as either "Class A" (highest quality) or "Class B" (next highest quality), pursuant to RSA 485-A:8 ("Water Pollution and Waste Disposal/Standards for Classification of Surface Waters of the State", http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-8.htm). The DES Watershed Management Bureau was created to address the needs of entire watersheds, rather than to simply deal with each water body separately. It organizes the planning, assessment, and implementation tasks for both "point" (*i.e.*, discharged from a pipe or other discrete conveyance) and "non-point" (*i.e.*, discharged without any confining conveyance) source control programs for each New Hampshire river basin. Its activities, which rely on a mix of voluntary and regulatory programs, are conducted under the authority of RSA 485-A ("Water Pollution and Waste Disposal", http://gencourt.state.nh.us/rsa/html/indexes/485-A.html) and NH CODE ADMIN. RULES Env-Ws 1700 ("Surface Water Quality Regulations", http://www.des.state.nh.us/wmb/Env-Ws1700.pdf, most recently adopted effective December 10, 1999). In 1998, DES and the U. S. Department of Agriculture's Natural Resources Conservation Service prepared the ***Unified Watershed Assessment*** (see http://www.des.state.nh.us/wmb/was/uwa.pdf) in response to the release of the federal ***Clean Water Action Plan***, which was intended to chart a course toward fulfilling the original goal of the federal Clean Water Act (*i.e.*, "fishable and swimmable" waters for all Americans). This assessment categorized the watersheds of New Hampshire into those in need of restoration, those that were currently meeting water quality goals but needed action to maintain water quality, those characterized as pristine or sensitive, those located on lands managed by federal/state/local government, and those with insufficient data to make an assessment. In 1999, the DES Watershed Management Bureau prepared a new, five-year, ***Non-Point Source Management Plan*** (see http://www.des.state.nh.us/wmb/was/npsplan.pdf) to update the original 1989 edition. DES established the Water Quality Standards Advisory Committee in 2000 to help formulate and revise watershed management policy and to solicit public input for drafting new rules and standards (see http://www.des.state.nh.us/wmb/wqsac/wqsac.htm). Based on the goals of the unified assessment and with considerable public input, it was decided that staff time would be focused initially on those watersheds in need of restoration. This approach places equal emphasis on protecting groundwater aquifers, swamps, marshes, bogs, rivers, streams, lakes, ponds, and estuaries, plus the surrounding forests, fields, and other upland areas. It also makes maximum use of limited time and resources. All of these actions set the stage for the current watershed program at DES.

Volunteer Monitoring Programs

The DES Watershed Management Bureau oversees several voluntary programs. These include biomonitoring surveys (see http://www.des.state.nh.us/wmb/biomonitoring/), conducting surveys of exotic species (see http://www.des.state.nh.us/wmb/exoticspecies/) and shellfish (see http://www.des.state.nh.us/wmb/shellfish/), supporting the Volunteer Lake Assessment Program (see http://www.des.state.nh.us/wmb/vlap/info_resources.htm) and the Volunteer River Assessment Program (see http://www.des.state.nh.us/wmb/vrap.htm and http://www.des.state.nh.us/factsheets/wmb/wmb-6.htm). Information obtained by volunteers in these programs provides the basis for evaluating future impacts to watersheds before they occur and provides an early warning for watersheds that may be deteriorating. Annual results from these activities are consolidated into the annual ***Section 305(b) Water Quality Report***, as required by the federal Clean Water Act (see http://www.des.state.nh.us/wmb/2000-305b.pdf).

Regulatory Programs (401 Water Quality Certificates; TMDLs; Public Bathing Facilities)

If a project is planned that will require application for a federal permit or license, and will result in any discharge to surface waters of the state, a Section 401 Water Quality Certificate issued by the DES Watershed Management Bureau may be needed (see NH CODE ADMIN. RULES Env-Ws 451-455, "Water Quality Certification Regulations", http://www.des.state.nh.us/wmb/section401.pdf). For most wetland projects, a generic 401 Water Quality Certificate is incorporated into the final DES Wetlands Bureau permit as a condition of the State Programmatic General Permit with the U. S. Army Corps of Engineers (see http://www.des.state.nh.us/wetlands/nhspgp.htm). The total maximum daily load ("TMDL") assessment is a relatively new tool that is used to characterize the receiving stream's capability to assimilate both existing and future discharges without violating surface water quality standards. Results of TMDL assessments are used when evaluating applications for surface water discharge permits (new or renewal). Finally, the DES Watershed Management Bureau also processes applications for the construction of public bathing facilities (*i.e.*, pools, spas, and other water-oriented attractions) and regulates their on-going operation. Design and operation standards are set for construction approval, followed by DES site inspections at the facility to ensure compliance with the standards of cleanliness and operation specified by the authorization.

Watershed Assistance Program

The Watershed Assistance Program (see http://www.des.state.nh.us/wmb/was/about_was.htm) is intended to create an awareness of Best Management Practices ("BMPs") for non-point source control and to develop and help implement mitigation systems to treat or divert non-point pollutant loads (*i.e.*, contaminated water that is carried to receiving waters outside of any type of pipe or conveyance). The goal is to intercept this direct discharge to watersheds (*e.g.*, sheet runoff from roofs, parking lots, and roads or overland flow from agricultural fields, construction sites, or real estate developments), redirect or treat it as necessary, and then allow it to discharge to receiving waters. Non-point source pollution occurs when rainfall, snowmelt, or irrigation runs over land or through the ground, picks up pollutants, and deposits them into rivers, lakes, and coastal waters, or introduces them into the groundwater. These pollutants may include oil and sand from roadways, agricultural chemicals from farmland, sediments from construction sites, crop pastures, forest lands, and eroding stream banks, and nutrients (*e.g.*, nitrogen and phosphorous compounds) and toxic materials from urban and suburban areas. Effective management of these pollutants in a watershed involves a concerted and long-term effort by land managers and developers as well as federal, state, and local officials through effective laws, policies, and ordinances.

Allied Programs

DES's approach to watershed management also entails contributions from several allied programs (some of which are discussed elsewhere in this *Guidebook*). The DES Laboratory Unit supports the Watershed Bureau and its Limnology Center in the assessment and monitoring phases of surface water protection. The DES Laboratory provides accurate and timely analyses of surface water samples, taken during monitoring or assessment surveys, to aid in both proper management of the resource and in providing the technical basis for devising effective remedial actions as necessary. The DES Dam Bureau manages surface water impoundments to ensure that this public trust resource is equally accessible to multiple interests/multiple uses, according to state statutes and the common law doctrine of "reasonable use". By regulating the flow from impoundments, parameters such as water temperature and dissolved oxygen can be manipulated to support the continued viability of fish populations and water quality in general. A Section 401 Water Quality Certificate is often used as the means to set conditions for surface water monitoring and compliance at new or reconstructed dams. Simply put, the DES Dam Bureau manages surface water quantity, while the DES Watershed Management Bureau manages surface water quality. Both play a vital role in protecting and preserving the relative health of watersheds. The Winnipesaukee River Basin Program, the state's largest regional wastewater treatment facility, was created in 1972 to rein in both treated and untreated point-source and non-point source discharges of fertilizers, failed septic system nutrients, road salt, automobile fluids, and other contaminants being discharged into Lake Winnipesaukee, Lake Winnisquam, and other surface water bodies in New Hampshire's "Lakes Region" (see http://www.des.state.nh.us/winni/). More than $70 million has been spent over the past three decades to expand this regional collection, treatment, and disposal system,

which rescued an entire watershed from the brink of massive eutrophication and returned it to a "fishable and swimmable" condition. This wastewater facility is unique in that it is a State-owned and operated regional facility that serves local member communities.

The DES Land Resources Management Program was created to coordinate the efforts of several existing programs, including the DES Wetlands Bureau, Shoreland Protection Program, Water Quality Engineering Section (Site Specific – Terrain Alteration/Erosion Control), Subsurface Systems Bureau, and Water Supply Engineering Bureau. (See the "Wetlands" chapter and the "Septic Systems/Real Property Subdivision" chapter of this *Guidebook* for a more detailed discussion of the DES wetlands, shoreland protection, and subsurface disposal systems programs; and their interactions.) The DES Wetlands Bureau plays a key role in water quality and quantity management, since wetlands intercept contaminated surface water runoff (*i.e.*, the "quality" aspect) and treat it through natural processes by removing unwanted nutrients and turbidity through plant tissue uptake and physical filtration/attenuation, respectively. Wetlands also intercept flood flows (*i.e.*, the "quantity" aspect) and mitigate the volume and velocity of those flows to protect both surface water quality and the human inhabitants (and their property) who live downstream. The DES Water Quality Engineering Section issues Site Specific Permits to control storm water runoff from sites where the natural slopes and soils are to be disturbed by construction activities or where natural vegetation otherwise will be removed and/or replaced. This permit is designed to reduce the potential for uncontrolled erosion and sedimentation that could negatively impact surface waters at sites where 100,000 square feet or more of contiguous land area is to be altered or re-graded (this threshold is reduced to 50,000 square feet within the protected shoreland zone). The DES Subsurface Systems Bureau regulates subdivisions where on-site wastewater disposal systems ("septic systems") will be used, as well as the design, construction, and operation of individual septic systems. With upwards of 250,000 septic systems currently operating in New Hampshire, there exists a significant potential for surface water quality degradation should these systems fail. As part of its responsibilities for regulating public water systems, the DES Water Supply Engineering Bureau processes Temporary Surface Water Discharge Permit applications to regulate discharges resulting from activities conducted at drinking water well systems, such as those generated by pump tests and rehabilitation or redevelopment of wells, as well as from water storage tank cleaning. However, if a project will involve groundwater remediation, pump-and-treat systems, or petroleum storage tank replacements, the Oil Remediation and Compliance Bureau within the DES Waste Management Division accepts applications, provides the review, and issues the decisions relative to the Temporary Surface Water Discharge Permit. This permit allows short-term, temporary discharges to occur in compliance with conditions designed to protect the quality of the receiving water and the watershed. (Other permits/approvals/certifications relating to drinking water systems are discussed in the "Drinking Water" chapter of this *Guidebook*.)

The U. S. Environmental Protection Agency ("EPA") reviews applications and authorizes National Pollutant Discharge Elimination System ("NPDES") Permits, and DES certifies them in accordance with New Hampshire water quality standards. NPDES Permits set limits and monitoring requirements for cooling water discharges from power plants, industrial discharges, municipal wastewater treatment facility effluents, and storm water runoff to protect the quality of the state's surface waters. EPA issues Multi-Sector Storm Water General Permits (see http://www.epa.gov/region1/topics/water/stormwater.html) for storm water discharges from industrial activity (see http://www.access.gpo.gov/nara/cfr/cfrhtml_00/Title_40/40cfr122_main_00.html) and the Construction Federal Storm Water Permit for storm water discharges from construction sites where more than five acres of land (Note: One acre after March 10, 2003) have been disturbed (see http://www.des.state.nh.us/factsheets/wwt/web-8.htm). These permits are discussed in greater detail in the "Wastewater" chapter of this *Guidebook*.)

Summary

The DES Watershed Management Bureau performs the primary role of assessing, monitoring, and protecting water quality in New Hampshire's watersheds (see http://www.des.state.nh.us/wmb/), and processes applications for the Section 401 Water Quality Certificate as part of its responsibilities. The Water Quality Engineering Section within the DES Land Resources Management Program provides the review,

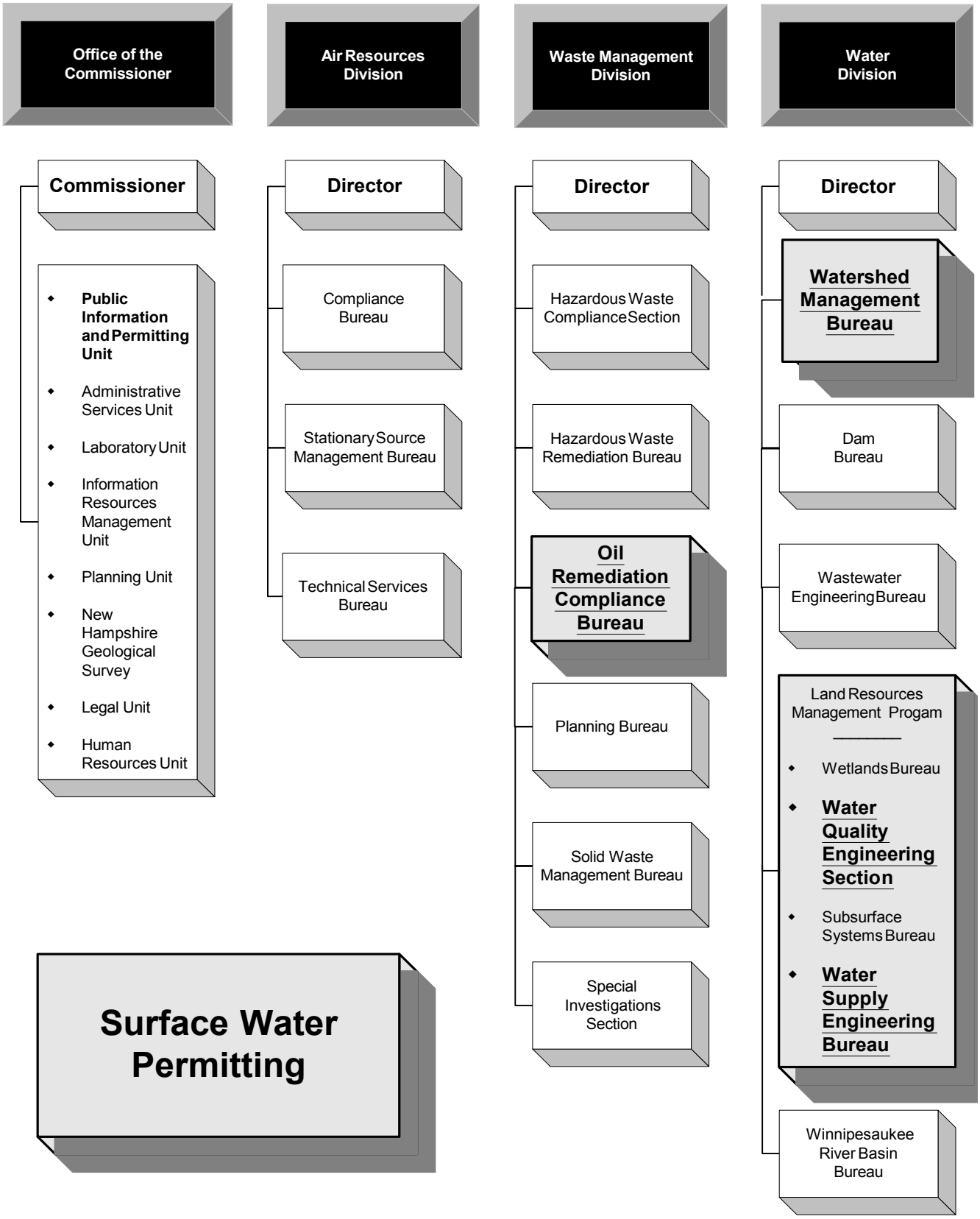
permitting, and enforcement for protection of surface water quality from degradation by erosion, sedimentation, and non-point-source storm water runoff through its Site Specific Permit. The Water Supply Engineering Bureau processes the applications and issues the decisions for the Public Bathing Facility Construction Approval and, if a project involves drinking water well/system rehabilitation, dewatering, or maintenance projects, the Water Supply Engineering Bureau performs the review and issues the decisions for the Temporary Surface Water Discharge Permit. However, if a project will involve groundwater remediation, pump-and-treat systems, or petroleum storage tank replacements, the Oil Remediation and Compliance Bureau within the DES Waste Management Division accepts applications, provides the review, and issues the decisions relative to the Temporary Surface Water Discharge Permit in those cases. Appeals of final decisions concerning these certificates, permits, or other approvals (or of orders issued for violations relating thereto) should be directed to the Water Council (see http://www.des.state.nh.us/councils/#1).

Chapter Contents

- ✓ **Section 401 Water Quality Certificate**
- ✓ **Site Specific Permit**
- ✓ **Temporary Surface Water Discharge Permit**
- ✓ **Public Bathing Facility Construction Approval**

Organizational Chart

New Hampshire Department of Environmental Services



Section 401 Water Quality Certificate

Introduction: The Section 401 Water Quality Certificate ("401 Certificate") was created to implement Section 401 of the federal Clean Water Act (see http://www.epa.gov/r5water/pdf/ecwa_t4.pdf) and to ensure that State Surface Water Quality Standards established in RSA 485-A ("Water Pollution and Waste Disposal", http://gencourt.state.nh.us/rsa/html/indexes/485-A.html) and NH CODE ADMIN. RULES Env-Ws 1700 (see ("Surface Water Quality Regulations", http://www.des.state.nh.us/wmb/Env-Ws1700.pdf) are maintained during construction projects that pose the potential for adversely impacting that resource. Any activity that will cause a discharge to navigable waters (*i.e.*, discharge to rivers, lakes, ponds, and/or marshes) and that requires a federal permit or license pursuant to the federal Clean Water Act or the River and Harbor Act of 1899, as amended (see http://www4.law.cornell.edu/uscode/33/ch12.html) likely will require a 401 Certificate from DES (see NH CODE ADMIN. RULES Env-Ws 451-455, "Water Quality Certification Rules", http://www.des.state.nh.us/wmb/section401.pdf). The DES Water Division, through its Watershed Management Bureau, administers this statewide 401 Certificate program. The U. S. Army Corps of Engineers ("Army Corps", http://www.nae.usace.army.mil/) and the Federal Energy Regulatory Commission ("FERC", see http://www.ferc.gov) are the two primary agencies to be contacted to determine whether a federal permit is necessary, particularly if an Army Corps "individual" permit is to be triggered (*i.e.*, a project that will disturb more than three acres of wetlands or one that may impact federal navigational channels). If a federal permit is necessary, the applicant must comply with Env-Ws 454. The 401 Certificate is a stand-alone document and must be in hand before any work begins, but it cannot be issued until all other relevant state and federal permits are obtained (typically including a DES Standard Dredge and Fill Permit and/or Site Specific Permit). Projects likely to require a 401 Certificate include road construction or pipeline installations with river or stream crossings, construction projects requiring the filling of a wetland or potentially impacting adjacent rivers and streams, and hydroelectric power facilities that require FERC licensing. A 401 Certificate is issued automatically by DES for projects that are included under the State Programmatic General Permit ("SPGP") agreement with the Army Corps. However, it should be noted that a 401 Certificate for a project under the SPGP may be revised relative to the potential water quality impact of that project. Many 401 Certificates are issued with conditions, which may include routine water quality monitoring and reporting requirements to determine whether state surface water quality standards are being met. DES enforcement action may result if it is found that the construction or operation of an authorized project is causing a violation of those standards. Projects that do not require a federal (Army Corps or FERC) permit are exempt from the 401 Certificate process.

Average number of certificates issued annually: 10

Fees: None

Estimated processing time after application is deemed "complete": 60 days, if FERC is not involved; 6-12 months when FERC has licensing jurisdiction

Certificate duration: 6 years, subject to renewal

Certificate transferability: A written notification to DES concerning the proposed transfer is required. A decision will then be made regarding the issuance of a new or revised 401 Certificate.

Certificate modification: If significant changes in the scope of the project occur, application must be made to request a new or revised 401 Certificate.

Certificate renewal: Reapplication for a 401 Certificate shall be made at least 180 prior to expiration of the existing certificate. If the project has not been initiated within 6 years of certificate issuance, application for a new 401 Certificate must be filed.

State statute: RSA 485-A:8, 13 ("Water Pollution and Waste Disposal", http://gencourt.state.nh.us/rsa/html/indexes/485-A.html)

Federal law: Federal Water Pollution Control Act of 1972 (Public Law 92-500, as amended by the Clean Water Act of 1977, http://www.epa.gov/r5water/pdf/ecwa_t4.pdf)

N. H. Code of Administrative Rules: Env-Ws 451-455 ("401 Water Quality Certification Regulations", http://www.des.state.nh.us/wmb/section401.pdf)

Appeals body: Water Council at RSA 21-0:7 ("Department of Environmental Services/Water Council", http://gencourt.state.nh.us/rsa/html/I/21-O/21-O-7.htm; see also http://www.des.state.nh.us/rules/env-wc200.pdf and http://www.des.state.nh.us/councils/#1)

Additional information: N. H. DES, Watershed Management Bureau, (603) 271-2457
U. S. Army Corps of Engineers, (800) 343-4789
U. S. Department of Energy, FERC, (202) 219-2700

Section 401 Water Quality Certificate - *Work Sheet*

Key Qualifier Questions: *Will your project require a federal permit or license to conduct activities which may result in any discharge to surface waters of the state? Does your project (1) require authorization from the U. S. Army Corps of Engineers or the Federal Energy Regulatory Commission for construction and/or operation, and (2) not qualify for inclusion within the DES Wetlands Bureau State Programmatic General Permit process?* (See http://www.des.state.nh.us/wetlands/nhspgp.htm and http://www.epa.gov/r5water/pdf/ecwa_t4.pdf)

What must you do to apply?

- Obtain an *Application for 401 Water Quality Certificate* from the DES Watershed Management Bureau or DES Public Information Center. Note: This form and a copy of the administrative rules for the 401 Water Quality Certificate (see http://www.des.state.nh.us/wmb/section401.pdf) typically are sent to the applicant after DES receives the applicant's *Notice of Intent* from the U.S. Army Corps of Engineers ("Army Corps", http://www.nae.usace.army.mil/) or the Federal Energy Regulatory Commission ("FERC", http://www.ferc.fed.us/).
- Contact the DES Wetlands Bureau at (603) 271-2147 to apply for a Standard Dredge and Fill Permit, and to determine whether the project qualifies for the New Hampshire State Programmatic General Permit.
- Contact the DES Wastewater Engineering Bureau at (603) 271-3908 to apply for a Site Specific Permit if the project will disturb more than 100,000 square feet of upland surface terrain on the same or contiguous properties, or 50,000 square feet within the protected shoreland (see http://www.des.state.nh.us/factsheets/sp/sp-4.htm and http://www.des.state.nh.us/factsheets/sp/sp-6.htm)
- Complete the *Application for 401 Water Quality Certificate*, which must include:
    - Name of and contact information for the applicant and his/her signature
    - Name, location, and description of the proposed project
    - Name of the drainage basin encompassing the proposed project
    - Waterways receiving drainage from the proposed project
    - Schedule for the construction and/or operation of the project
    - Information relative to project discharge
- Attach the following to the *Application for 401 Water Quality Certificate*:
    - An original of a U. S. Geological Survey quadrangle map with project location and its discharge (see http://www.topozone.com)
    - A copy of the complete federal (*i.e.*, Army Corps or FERC) permit application, including federal permit number
    - A copy of the Standard Dredge and Fill Permit from the DES Wetlands Bureau Permit
    - A copy of the Site Specific Permit from the DES Wastewater Engineering Bureau
    - A copy of any other state and local permits and applications required by law (*e.g.*, local conservation/planning commission permits, state septic design approvals, *etc*.)
    - A list of the names and addresses of abutting riparian or littoral landowners
    - A scale plan showing the proposed project, including project boundaries, location, dimensions, and types of any existing and/or proposed structures, and location and extent of water bodies, including wetlands
- Provide any relevant water quality information (*e.g.*, data, reports) from the proposed project area.
- Determine whether the proposed project will affect fourth-order rivers or streams (see http://www.des.state.nh.us/cspa/files/4thorder.pdf), protected by RSA 483-B ("Comprehensive Shoreland Protection Act", http://www.des.state.nh.us/cspa/files/lawrules.pdf).
- Determine whether the proposed project will affect New Hampshire designated rivers protected by special provisions of RSA 483:9 ("New Hampshire Rivers Management and Protection Program/Natural Rivers Protection", http://gencourt.state.nh.us/rsa/html/L/483/483-9.htm; see also http://www.des.state.nh.us/rivers/).

- Submit the application and all supporting materials to: Watershed Management Bureau, Water Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, Concord, NH 03302-0095. Telephone: (603) 271-2457; fax: (603) 271-7894; or online: http://www.des.state.nh.us/wmb/

What types of projects require this certificate?

- ❖ Road, highway, or pipeline construction and/or operation near, through, or over rivers and streams
- ❖ Golf course construction that will include rivers and streams within project boundaries
- ❖ Large-scale housing, municipal, or industrial developments near rivers and streams, including dredging
- ❖ Construction, re-licensing, and/or operation of non-federal hydroelectric projects

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If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at tdrew@des.state.nh.us or at (603) 271-3306.

Site Specific Permit

Introduction: Site preparation and land use changes, whether from timber harvesting, terrain alteration, borrow pit excavation, subdivision development, mining, or dredge and fill activities, commonly involve removal of vegetation, re-grading, and other ground surface disruptions. Such disruptions have the potential to create adverse impacts to surface water quality through soil erosion, siltation, sedimentation and overland pollutant transport. The DES Site Specific Permit is designed to ensure that proper erosion and sedimentation controls and measures for attenuation of peak storm water runoff and treatment of runoff from impervious surfaces are included in project plans and are implemented as designed. These preventive measures are required to prevent adverse effects such as storm water impacts to abutting landowners, the smothering of aquatic life in adjacent water bodies, and increases in the costs of treating surface water for human consumption. A Site Specific Permit is required by RSA 485-A:17 ("Water Pollution and Waste Disposal/Terrain Alteration", http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-17.htm) when more than 100,000 square feet of contiguous land area is to be disturbed (50,000 square feet within the protected shoreland as defined by RSA 483-B, the Comprehensive Shoreland Land Protection Act (see http://gencourt.state.nh.us/rsa/html/indexes/483-B.html or http://www.des.state.nh.us/cspa/). Best Management Practices ("BMPs") such as detention/retention ponds, treatment swales, and vegetated buffer strips often are used to mitigate increases in runoff and provide treatment of storm water prior to its release to surface water bodies. For more program information, see http://www.des.state.nh.us/sitespecific/. Local control over excavation projects is governed by RSA 155-E ("Local Regulation Excavations", http://gencourt.state.nh.us/rsa/html/indexes/155-E.html). A useful handbook for addressing such projects entitled, ***RSA 155-E: The Law Governing Earth Excavations – A Handbook for New Hampshire Municipalities***, can be found at http://webster.state.nh.us/osp/library/docs/ExcavationHandbook.pdf). Dimension stone and mineral mining regulation is carried out pursuant to the authority provided by RSA 12-E ("Mining and Reclamation, http://gencourt.state.nh.us/rsa/html/indexes/12-E.html) and is administered by the New Hampshire Department of Resources and Economic Development through its Land Management Bureau within the Division of Forests and Lands. The Bureau can be reached by telephone at (603) 271-2214, fax at (603) 271-2629, or through its Web site at http://www.nhdfl.org/land_mgt_bureau/lm_bureau.htm.

Average number of permits issues annually: 275

Fees: $100 for up to 200,000 square feet of impact; an additional $100 for each additional 100,000 square feet, or portion thereof, of impact

Estimated processing time after application is deemed "complete": 4-6 weeks

Permit duration: 2 years, except for certain excavation projects, for which this permit is permanent (with reporting requirements)

Permit transferability: Within ten days from the change in site ownership, the new owner must notify DES in writing and list the full name and address for the new and former owner, the exact site location, and its permit number. Assuming the site is in compliance, an amended permit will be forwarded by mail to the new owner.

Permit modification: A permit may be modified by submitting revised design plans with all supporting data and documentation (including an in-depth explanation of the need for the changes) at any time during the two-year duration of the existing permit. Any modification must be reviewed and approved by DES.

Permit renewal: All permits (except for certain excavation projects) will expire two years after issuance unless a request for an extension is received within 90 days prior to the expiration date. Excavation facility permits remain valid for the life of the project, provided a status report is submitted every two years and updated plans are received every six years.

State statute: RSA 485-A:17 ("Water Pollution and Waste Disposal/Terrain Alteration", http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-17.htm)

N. H. Code of Administrative Rules: Env-Ws 415 ("Permits for RSA 485-A:17 Activities", http://www.des.state.nh.us/sitespecific/env415.pdf)

Appeals body: Water Council at RSA 21-0:7 ("Department of Environmental Services/Water Council", http://gencourt.state.nh.us/rsa/html/I/21-O/21-O-7.htm; see also http://www.des.state.nh.us/rules/env-wc200.pdf and http://www.des.state.nh.us/councils/#1)

Additional information:
N. H. DES, Land Resources Management Program, (603) 271-2303
N. H. DES, Wetlands Bureau (Shoreland Section), (603) 271-7109
N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876

Site Specific Permit – *Work Sheet*

Key Qualifier Questions: *Will the proposed project involve dredging, filling, excavating, mining, transporting of forest products, or construction in or on the border of any surface water of the State? Will the proposed project involve earth moving or other terrain alteration that will impact more than 100,000 contiguous square feet of upland or more than 50,000 square feet within the protected shoreland of a public water body?* [1, 2]

What must you do to apply?

- Obtain a copy of the *Site Specific Application* from the DES Water Division or Public Information Center, or access it online at http://www.des.state.nh.us/sitespecific/siteappl.htm.
- Complete the application form and note the exact project location on a U. S. Geological Survey topographical map (see http://www.topozone.com).
- Prepare a project narrative (usually included within the drainage report) that describes the proposed project and existing site conditions.
- If the proposed work is for an excavation facility, prepare a site plan at a scale of 1" = 100' (or less) with contour intervals of five feet or less.
- For all other types of projects, prepare a detailed development plan at a scale of 1" = 50' (or less) with a contour interval of two feet.
- Prepare both pre-development and post-development drainage design plans for the project which bear the seal of a registered professional engineer licensed to practice in the state of New Hampshire.
- Prepare storm drainage calculations for each drainage area, noting the storm frequency used (*e.g.*, 10-year storm) and the method of determining time of concentration ("T_c"), including copies of all reference charts used, worksheets showing the derivation of "CN" or "C" value for each drainage area, and calculations to demonstrate that downstream structures have sufficient capacity for post-development flows.
- Prepare designs and calculations for post-development flood protection measures including detention/retention basins, pre- and post-development flows for each drainage area, methods of decreasing runoff, arrangements for any necessary easements, and typical cross-sections.
- Prepare and submit plans for permanent storm water treatment from impervious surfaces such as roads, parking lots, roofs, *etc.* Include a discussion on controls like vegetated filter strips, grassed swales, extended detention ponds, wet ponds, constructed wetlands, infiltration trenches or basins, and water quality inlets. For reference, obtain a copy of the DES publication number "R-WSPCD-95-3" entitled ***Best Management Practices for Urban Storm Water Runoff*** from the Public Information Center or at http://www.des.state.nh.us/desguid.htm.
- Include in the plans the types of erosion control measures and BMPs to be used, the scheduling, phasing, and coordination of construction activities, design factors used to avoid adverse surface water quality impacts, construction sequence (with limits to the area of disturbance), and temporary erosion control measures.
- Submit a check or money order for the appropriate fee (calculated based on total land surface impacts) made payable to "Treasurer, State of New Hampshire" with the completed application form and all supporting plans, calculations, and other documents to: Land Resources Management Program, Site Specific Section, Water Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, Concord, NH 03302-0095. Telephone: (603) 271-2303; fax: (603) 271-4128; or online: http://www.des.state.nh.us/sitespecific/

What types of projects require this permit?

- ❖ The construction of a subdivision right-of-way that is 50-feet wide and 2,000-feet or more in length, or one that has 1,000 linear feet or more lying within the protected shoreland zone of a public water body

- ❖ Site preparation (including building "footprint", access roads, parking lots, *etc*.) for the construction of a residential, commercial, or industrial facility that disturbs more than 100,000 square feet of contiguous area (or more than 50,000 square feet of contiguous area within the protected shoreland)
- ❖ The expansion, by 100,000 square feet or more, of an existing "grandfathered" earth removal operation

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Note 1: Local regulation of excavation projects is governed by RSA 155-E ("Local Regulation Excavations", http://gencourt.state.nh.us/rsa/html/indexes/155-E.html). A useful handbook for addressing such projects entitled, ***RSA 155-E: The Law Governing Earth Excavations – A Handbook for New Hampshire Municipalities***, can be found at http://webster.state.nh.us/osp/library/docs/ExcavationHandbook.pdf).

Note 2: Dimension stone and mineral mining regulation is carried out pursuant to the authority provided by RSA 12-E ("Mining and Reclamation, http://gencourt.state.nh.us/rsa/html/indexes/12-E.html) and is administered by the New Hampshire Department of Resources and Economic Development through its Land Management Bureau within the Division of Forests and Lands. The Bureau can be reached by telephone at (603) 271-2214, fax at (603) 271-2629, or through its Web site at http://www.nhdfl.org/land_mgt_bureau/lm_bureau.htm.

If there are any questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at tdrew@des.state.nh.us or at (603) 271-3306.

Temporary Surface Water Discharge Permit

Introduction: RSA 485-A:13, I ("Water Pollution and Waste Disposal/Water Discharge Permits", http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-13.htm) states that *[it] shall be unlawful for any persons or persons to discharge or dispose of any sewage or waste to the surface water or groundwater of the state without first obtaining a written permit from [DES]*. No discharges are allowed into Class A surface water bodies (which often are a source of public drinking water), but a Temporary Surface Water Discharge Permit ("TSWD Permit") can be obtained for certain temporary direct discharges of point source (*i.e.*, "end-of-pipe") pollutants to Class B surface water bodies (see http://www.des.state.nh.us/factsheets/oil/oil-16.htm). A TSWD Permit is not required for activities that require the issuance of a 401 Water Quality Certificate (see NH CODE ADMIN. RULES Env-Ws 451-455, "401 Water Quality Certification Regulations", http://www.des.state.nh.us/wmb/section401.pdf) pursuant to Section 401 of the federal Clean Water Act, such as for longer-term projects that require an "individual permit" from the U. S. Army Corps of Engineers under Section 404 of the Clean Water Act for discharges to wetlands or surface waters, or in conjunction with an NPDES Permit issuance for long-term piped (*i.e.*, confined) discharges to surface waters, or for long-term discharges to publicly-owned treatment works (which must also meet the pretreatment standards specified in NH CODE ADMIN. RULES Env-Ws 904, "Standards for Pretreatment of Industrial Wastewater", http://www.des.state.nh.us/rules/adptd904.pdf). It also does not apply to discharges from construction, storm water runoff, or runoff from construction sites [which cannot go directly to surface waters without treatment and may require an NPDES Permit from the U. S. Environmental Protection Agency ("USEPA")] or storm water discharges which may also require an NPDES Permit from the USEPA (refer to the "Wastewater" chapter elsewhere in this *Guidebook*). To obtain a TSWD Permit, an applicant must submit the original permit application to DES and must submit copies of the completed permit application to the USEPA in Boston to obtain an *NPDES Permit Application-Incident Notification Report* (see http://cfpub1.epa.gov/npdes/), and to the municipal clerk (pursuant to RSA 541-A:39, "Administrative Procedure Act/Notice to Municipalities", http://gencourt.state.nh.us/rsa/html/LV/541-A/541-A-39.htm). DES will not issue a TSWD Permit until a copy of the EPA's NPDES *Permit Application-Incident Notification Report* has been received and a copy of the application has been submitted to the municipal clerk. The TSWD Permit is nonrenewable, requires treatment by best available technology (typically sediment removal followed by granular activated carbon treatment), establishes standards and time limitations for the discharge, and requires laboratory analyses to verify that surface water quality standards have been achieved prior to discharge. Please note: The DES Water Supply Engineering Bureau processes all TSWD Permit applications for projects related to public water systems such as well pump tests, rehabilitation, redevelopment, and storage tank cleaning, while the DES Waste Management Division processes all other TSWD Permit applications.

Average number of permits issued annually: 40

Fees: None

Estimated processing time after application is deemed "complete": 15 days

Permit duration: 4 months, which can be extended if applications for a full NPDES Permit and a DES State Surface Water Discharge Permit are forwarded to the appropriate agencies

Permit transferability: Nontransferable

Permit modification: Nonmodifiable

Permit renewal: Nonrenewable

State statute: RSA 485-A:13, I ("Water Pollution and Waste Disposal/Water Discharge Permits", http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-13.htm)

N. H. Code of Administrative Rules: Env-Ws 400-405 ("Protection of State Surface Waters", http://www.des.state.nh.us/rules/ws400-405.pdf) and Env-Ws 1700 ("Surface Water Quality Regulations", http://www.des.state.nh.us/wmb/env-ws1700.pdf)

Appeals body: Water Council at RSA 21-0:7 ("Department of Environmental Services/Water Council", http://gencourt.state.nh.us/rsa/html/I/21-O/21-O-7.htm; see also http://www.des.state.nh.us/rules/env-wc200.pdf and http://www.des.state.nh.us/councils/#1)

Additional information: N. H. DES, Water Supply Engineering Bureau, (603) 271-2858
N. H. DES, Waste Management Division, (603) 271-3644

Temporary Surface Water Discharge Permit – *Work Sheet*

Key Qualifier Questions: *Will the proposed project result in the discharge to a surface water body of non-domestic wastewater generated as a result of rehabilitation of a public water well or public water system storage tank purge/maintenance activities or from construction (typically, excavation dewatering) at a site with known or potential contamination? Will the proposed project involve the remediation of spills to, or other contamination of, the ground or groundwater, with final disposal in either case to a surface water body?*

What must you do to apply?

- Obtain an *Application for Temporary Surface Water Discharge Permit* from the DES Water Supply Engineering Bureau, DES Hazardous Waste Remediation Bureau, DES Public Information Center, or complete the application online at http://www.des.state.nh.us/orcb/doclist/tmpswapp.pdf.
- Obtain an *NPDES Permit Exclusion Application-Incident Notification Report* from: NPDES Program, Office Ecosystem Protection (Mail Code CPE), U. S. Environmental Protection Agency, JFK Federal Building, One Congress Street, Boston, MA 02203. Telephone: (617) 918-1551; online: http://cfpub1.epa.gov/npdes/
- Prepare a complete description of the project and representative site plan, including all location information related to the facility/project and the names of the owner, operator, and contact person for the facility/project.
- Prepare a locus map derived from a U. S. Geological Survey map (7½-minute series, if available) that clearly identifies the facility or project location and the location of the discharge point to the receiving surface water body (see http://www.topozone.com).
- Prepare a description of the proposed discharge including its purpose (groundwater remediation, well rehabilitation, excavation dewatering, *etc.*), its location and distance to the nearest sanitary sewer, proposed discharge at both intermediary (storm drain inlet; swale) and final (surface water body) locations, proposed discharge rate, proposed discharge duration, identification of the intended receiving water and erosion control measures to be used, plus a certification that site activities either have or have not contributed to phosphorus levels in surface waters (in the case of discharges to a lake or pond) or in the ground or groundwater.
- Describe the proposed treatment, neutralization, or de-chlorination processes to be used, including information on influent quality, effluent quality, sludges or other by-products to be generated, and identify chemicals to be used.
- If applicable, provide a description of the material involved in the spill/release including its location, site information, type of material released, and affected areas (*e.g.*, bodies of water, drinking water wells, vapors in basements, *etc.*)
- Submit a copy of the completed *NPDES Permit Exclusion Application-Incident Notification Report* and a copy of the completed *Temporary Surface Water Discharge Permit Application* with all supporting information to: NPDES Program, Mail Code CPU, Office of Ecosystem Protection, U. S. Environmental Protection Agency, JFK Federal Building, One Congress Street, Suite 1100, Boston, MA 02114-2023 (Telephone: (617) 918-1545; fax: (617) 918-2064; online: http://cfpub1.epa.gov/npdes/) to secure a letter that outlines discharge standards and limitations (to be used until replaced by a *Notice of Intent for General Permit* is available from the USEPA).
- Submit the completed, original *Temporary Surface Water Discharge Permit Application* with all supporting information (including the *NPDES Permit Exclusion Application-Incident Notification Report*) to DES at the address noted below.
- Submit a copy of the complete application to the appropriate municipal clerk, pursuant to RSA 541-A:39 (Administrative Procedure Act/Notice to Municipalities", http://gencourt.state.nh.us/rsa/html/LV/541-A/541-A-39.htm).
- If the project will involve groundwater remediation, pump-and-treat systems, or petroleum storage tank replacements, submit the original permit application to: Site Remediation Programs, Waste Management Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O.

Box 95, Concord, NH 03302-0095. Telephone: (603) 271-3644; fax: (603) 271-2181; or online: http://www.des.state.nh.us/orcb_hwrb.htm

- If the project will involve public water system rehabilitation, dewatering, or maintenance projects, submit the original permit application to: Water Supply Engineering Bureau, Water Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-2858; fax: (603) 271-5171; or online: http://www.des.state.nh.us/dwspp/gwdisch.htm

What types of projects require this permit?

- ❖ Groundwater remediation activities at a contaminated site
- ❖ Excavation dewatering for construction projects at, or near, a site with known or potential contamination if discharge quality meets permit requirements (*i.e.*, sufficiently treated to comply with ambient groundwater and surface water quality standards prior to release)
- ❖ Water supply well pump tests, rehabilitation, or water system maintenance projects (*e.g.*, water storage tank cleaning)

If there are questions regarding this page or any other section of the Guidebook, please contact Tim Drew, Administrator, Public Information and Permitting Unit, at tdrew@des.state.nh.us or at (603) 271-3306.

Public Bathing Facility Construction Approval

Introduction: As the popularity of public pools and spas continues to increase, it is important for DES to remain on the forefront of public health and safety issues related to their use. Diseases such as cryptosporidiosis, giardiasis, legionellosis, dysentery, leptospiroses, and folliculitis can be spread through contact with contaminated natural waters, swimming pools, and spas. Some strains of the bacterium known as *Escherichia coli* also are known to be human pathogens (see http://www.des.state.nh.us/factsheets/bb/bb-14.htm). Pools and spas also can play a role in the transmission of infections of the eye, ear, nose, throat and skin. Because of these concerns, the proper construction, operation, and maintenance of these facilities is regulated by DES pursuant to RSA 485-A:26 ("Water Pollution and Waste Disposal/Swimming Pools and Bathing Places", http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-26.htm) and NH CODE ADMIN. RULES Env-Ws 1101-1105 (*Swimming Pools, Bathing Places, Spas, Water Slides, Juvenile Camps and Special Recreation Pool Rules*, http://www.des.state.nh.us/pools/env1100.pdf). Whether the public bathing facility is located at a motel, hotel, condominium, campground, water park, health club, injury treatment center, school, or a community center, and whether it is used for recreation, physical therapy, or competition, each facility operator must possess a design approval from DES based on plans and specifications that meet or exceed recognized standards (see http://www.des.state.nh.us/factsheets/bb/bb-41.htm). Once a plan receives design approval, construction may begin. Private residential pools are exempt from this program. DES currently monitors conditions at more than 1,200 public bathing facilities across the state. DES has established standards to ensure that construction designs provide for safe use, water quality is sampled and analyzed regularly, and that scheduled maintenance is performed regularly and is recorded by the operator. If any of these standards are violated, DES or the local health officer will work with the facility operator to ensure that sanitary operating conditions are restored to acceptable standards. In some cases, closing the facility until water sampling and analysis confirm the elimination of the unsanitary conditions may be required.

Average number of approvals issued annually: 45

Fee: $100 per application

Estimated processing time after application is deemed "complete": 30 days

Approval duration: Permanent (so long as no changes are made to the design)

Approval transferability: Automatic transfer upon change of ownership. The new owner must submit a written request for a name change to the DES Public Bathing Facility Program.

Approval modification: The owner or authorized representative must submit a written request to the DES Public Bathing Facility Program with new design plans and justification for an amendment. No changes or modifications to any structure and/or circulation and disinfection system component may be made without prior approval from DES. If the proposed changes are extensive, a new application may be requested.

Approval renewal: None

State statute: RSA 485-A:26-28 ("Water Pollution and Waste Disposal/Safety Regulations", http://gencourt.state.nh.us/rsa/html/L/485-A/485-A-26.htm)

N. H. Code of Administrative Rules: Env-Ws 1100 - 1105 ("Swimming Pools, Bathing Places, Spas, Water Slides, Juvenile Camps and Special Recreation Pools", http://www.des.state.nh.us/pools/env1100.pdf)

Appeals body: Water Council at RSA 21-0:7 ("Department of Environmental Services/Water Council", http://gencourt.state.nh.us/rsa/html/I/21-O/21-O-7.htm; see also http://www.des.state.nh.us/rules/env-wc200.pdf and http://www.des.state.nh.us/councils/#1)

Additional information:

N. H. DES, Public Bathing Facility Program, (603) 271-7108
N. H. DES, Public Information Center, (603) 271-2975 or (603) 271-8876
N. H. DES, Watershed Management Bureau, (603) 271-2457
National Spa & Pool Institute/American National Standard, (703) 838-0083

Public Bathing Facility Construction Approval – *Work Sheet*

Key Qualifier Question: *Will the proposed project entail the construction and operation of a public bathing facility, such as a pool for swimming, wading, recreation, or therapy, or a spa, hot tub, whirlpool, or water slide, that will be owned by a municipality or private commercial entity? (Privately-owned bathing facilities that are subject to DES jurisdiction include those at hotels, motels, health facilities, water parks, condominium complexes, apartment or other residential complexes, campgrounds, and educational institutions.)* Note: Private, single-family residential pools are exempt from this program.

What must you do to apply?

- Obtain a copy of the *Public Bathing Facility "Pool " and/or "Spa" Application* from the DES Watershed Management Bureau, DES Public Information Center, or access the application online at http://www.des.state.nh.us/pools/poolsapp.htm.
- Complete the *"Pool"* application to gain approval for constructing a swimming pool, wading pool, therapy pool, or receiving pool (for a water slide).
- Complete the *"Spa"* application to gain approval for constructing a spa, hot tub, whirlpool, or Jacuzzi.
- Include a simple layout of buildings, bathing area, rest rooms, showers, and location of water supply.
- Include a scale drawing of the proposed bathing facility showing dimensions, skimmer and inlet locations, the spacing of gutter or deck drains, size, location and material of piping, fill-spout and main drains/suction outlets.
- Include a longitudinal section of entire pool/spa and cross-section at deep end showing depths & slopes.
- Include a detailed schematic of circulation and disinfection piping.
- Include specifications of circulation system components, such as filters, pumps, skimmers, disinfection units, chemical controllers, flow meters, etc.
- Submit a check or money order for the application fee ($100) made payable to "Treasurer, State of New Hampshire" with the application and all enclosures then forward to: Public Bathing Facility Program, Watershed Management Bureau, Water Division, New Hampshire Department of Environmental Services, 6 Hazen Drive, P. O. Box 95, Concord, NH 03302-0095. Telephone: (603) 271-7108; fax: (603) 271-7894; or online: http://www.des.state.nh.us/pools/
- A separate application must be submitted for each pool or spa.

What types of projects require this approval?

- ❖ The construction of a competition diving pool for a university
- ❖ The construction or installation of a self-contained hot tub for a bed and breakfast inn
- ❖ The replacement of an old pool or spa, which requires major structural and/or circulation upgrades
- ❖ The construction of an 800 square foot wading pool for a water park

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